



US009638465B2

(12) **United States Patent**  
**Lee et al.**

(10) **Patent No.:** **US 9,638,465 B2**  
(45) **Date of Patent:** **\*May 2, 2017**

(54) **CLOTHES TREATING APPARATUS HAVING DRYING FUNCTION**

(71) Applicant: **LG Electronics Inc.**, Seoul (KR)

(72) Inventors: **Yongju Lee**, Seoul (KR); **Sangik Lee**, Seoul (KR)

(73) Assignee: **LG Electronics Inc.**, Seoul (KR)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 143 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **13/739,185**

(22) Filed: **Jan. 11, 2013**

(65) **Prior Publication Data**

US 2013/0180126 A1 Jul. 18, 2013

(30) **Foreign Application Priority Data**

Jan. 13, 2012 (KR) ..... 10-2012-0004426

(51) **Int. Cl.**  
**D06F 58/26** (2006.01)  
**D06F 58/20** (2006.01)  
(Continued)

(52) **U.S. Cl.**  
CPC ..... **F26B 23/00** (2013.01); **D06F 58/02** (2013.01); **D06F 58/20** (2013.01); **D06F 58/26** (2013.01); **D06F 2058/289** (2013.01)

(58) **Field of Classification Search**  
CPC ..... F26B 23/00; F26B 23/001; F26B 23/002; F26B 23/007; D06F 58/02; D06F 58/26; D06F 58/20; D06F 2058/289  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,776,826 A \* 1/1957 Bennett ..... D06F 58/02 34/82

3,325,908 A 6/1967 Gartley  
(Continued)

FOREIGN PATENT DOCUMENTS

CN 101575796 A 11/2009  
CN 201648799 U 11/2010

(Continued)

OTHER PUBLICATIONS

Combined Search and Examination Report dated Apr. 30, 2013 from GB Application No. 1300591.3, in English, 5 pages.

(Continued)

*Primary Examiner* — Kenneth Rinehart

*Assistant Examiner* — Tavia Sullens

(74) *Attorney, Agent, or Firm* — Fish & Richardson P.C.

(57) **ABSTRACT**

A clothes treating apparatus having a drying function comprises a cabinet to receive a rotatable drum therein, the cabinet defining an appearance of the apparatus, a module part mounted onto an outer surface of the cabinet, the module part comprising a heater assembly, a blower assembly, and a housing for accommodating the heater assembly and the blower assembly, and a link unit to connect the module part onto the rear side of the cabinet, wherein the heater assembly includes a heater module as an air heating device, a thermostat installed at a position adjacent to an outlet side of the heater module to turn the heater module on or off according to air temperature, and a slit formed between the thermostat and the heater module to allow for introduction of external air.

**12 Claims, 19 Drawing Sheets**

